

US-Claims

1. Use of a liquid composition suitable for producing a "dry" lubricant film (as defined herein) on a surface by discontinuous application of said composition, for lubricating a conveyor belt, said composition comprising at most 95% by weight of an aqueous phase and also being suitable for continuous application to a conveyor belt surface, with or without further dilution with water, to remove incidental spillages of extraneous material from the conveyor belt surface without loss of the required lubricity.
2. Use according to claim 1, wherein the conveyor belt is a single conveyor belt and wherein an amount of 2-20 ml of the liquid composition is fed every 20 minutes to said belt.
3. Use according to claim 1, wherein the liquid composition comprises a silicone oil and the aqueous phase.
4. Use according to claim 3, wherein the liquid composition comprises:
 - (c) 10-95% by weight of the aqueous phase; and
 - (d) 1-55% by weight of the silicone oil.
5. Use according to claim 1, wherein the liquid composition comprises an oil selected from vegetable oils, mineral oils and mixtures thereof.

6. Use according to claim 5, wherein the liquid composition additionally comprises the aqueous phase.

7. Use according to claim 5, wherein the liquid composition comprises:

- 10-90% by weight of the oil selected from vegetable oils, mineral oils and mixtures thereof; and
- 10-50% by weight of water.

8. Use according to claim 1, wherein the liquid composition comprises a polyhydric alcohol.

9. Use according to claim 8, wherein the polyhydric alcohol is selected from the group consisting of glycerine, propylene glycol, and ethylene glycol.

10. Use according to claim 8, wherein the polyhydric alcohol is present in the liquid composition at a concentration of at least 20% by weight.

11. Use according to any of claims 1, wherein the liquid composition includes an aqueous phase, and wherein polytetrafluoroethylene (PTFE) resin is present in said aqueous phase in the form of an ultrafine particle dispersion of the resin.

12. Use according to claim 11, wherein the PTFE constitutes 2-25% by weight of the liquid composition.

13. Use according to any of claim 1, wherein the liquid composition includes a surfactant material selected from the group consisting of anionic surfactants, nonionic surfactants, cationic surfactants, amphoteric surfactants, and mixtures thereof.

14. Use according to claim 13, wherein the surfactant material is present in the composition at a concentration of 0.1-10% by weight.

15. Use according to any of claims 1, wherein the liquid composition is applied onto the surface of a conveyor belt using a "flicker" non-contact applicator, containing

- a motor-driven rotating tubular brush which pick up said liquid composition from a sump via transfer rollers, and
- a steel plate mounted against the brush which flicks the bristles as the brush rotates, to generate a mist of droplets of liquid material directed onto the surface of the conveyor belt.

16. Method of lubricating a conveyor belt, comprising the steps of

(i) formulating a liquid composition suitable for producing a "dry" lubricant film (as defined herein) on a surface by discontinuous application of said composition, said composition comprising up to 95% by weight of an aqueous phase and also being suitable for continuous application to a conveyor belt surface, with or without further dilution with water, to remove incidental spillages of extraneous

material from the conveyor belt surface without loss of the required lubricity, and

(ii) applying said liquid composition to the conveyor belt as a thin "dry" lubricant film.